APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/679,321	10/03/2000	Junaid Islam	25987-701	6682

			EXAMINER
21971	7590	05/09/2006	DELGADO, MICHAEL A

WILSON SONSINI GOODRICH & ROSATI
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ART UNIT	PAPER NUMBER
2144	

DATE MAILED: 05/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

<table>
<tr>
<td rowspan="2"><i>Office Action Summary</i></td>
<td colspan="2">Application No.</td>
<td colspan="2">Applicant(s)</td>
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<tr>
<td colspan="2">09/679,321</td>
<td colspan="2">ISLAM ET AL.</td>
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<td rowspan="2"></td>
<td colspan="2">Examiner</td>
<td>Art Unit</td>
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<tr>
<td colspan="2">Michael S. A. Delgado</td>
<td>2144</td>
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 December 2005*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 October 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments include the failure of previously applied art to expressly disclose wherein modules on the network devices are configured to be remotely loaded, unloaded, or modified to facilitate service changes without interrupting network traffic routed through the network devices. See Response, Remarks dated 12/16/2005, page 8. It is evident from the detailed mappings found in the above rejections that Harsham et al. disclosed this functionality in a central administrator allowing configuration files to be loaded on devices while the network is in an active state. Further, it is clear from the numerous teachings (previously and currently cited) that the provision for downloading configuration files (modules) without interrupting network traffic, was widely implemented in the networking art. Thus, Applicant's arguments drawn toward distinction of the claimed invention and the prior art teachings on this point are not considered persuasive.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 1-3, 7, 9 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by US

Patent No, 6,041,347 by Harsham et al.

In claim 1, Harsham teaches about a distributed stack of programmable network devices,

the distributed stack comprising (Col 4, lines 25-45):

a first plurality of programmable network devices (Fig 1, E, F) the first plurality of

programmable network devices in communication via a first bus (Fig 1, 30), such that the first

plurality of programmable network devices includes a first plurality of modules "configuration

files" (Col 2, lines 25-45) (Col 6, lines 1-10) the first plurality of modules performing a first

plurality of network protocols (Col 2, lines 1-10);

a second plurality of programmable network devices (Fig 1, A, C), the second plurality of

programmable network devices in communication via a second bus (Fig 1, 36), such that the

second plurality of programmable network devices includes a second plurality of modules

"objects" (Col 2, lines 25-45), the second plurality of modules performing a second plurality of

network protocols (Col 2, lines 1-10);

wherein the first bus and the second bus are coupled via the Internet (Col 3, line 65- Col

4, line 15);

wherein modules on the network devices are configured to be remotely loaded (from

central administrator to devices), unloaded, or modified to facilitate service changes (create,

modify or delete objects) without interrupting network traffic routed through the network devices

(Col 7, lines 40-50) (Col 9, lines 35-50) (Col 10, lines 20-40). The changes are implemented

using filters, which allows the changes to take place without interruption live traffic.

In claim 2, Harsham teaches about a distributed stack of claim 1, wherein the first

plurality of network protocols includes a first application protocol (Col 2, lines 1-10), (Col 7,

lines 60-67). Protocol is selectable

In claim 3, Harsham teaches about a distributed stack of claim 2, wherein the first

plurality of network protocols includes a first network management protocol (Col 1, lines 45-

60).

In claim 7, Harsham teaches about a distributed stack of claim 3, wherein the second

plurality of network protocols includes a second application protocol (Col 4, lines 30-40), (Col 7,

lines 60-67). Protocol is selectable.

In claim 9, Harsham teaches about a distributed stack of claim 7, wherein the second

plurality of network protocols includes a second network management protocol (Col 2, line 58-

Col 3, line 25). Grouping of network device and protocol are selectable

In claim 17, Harsham teaches about a method of loading a plurality of software modules

"configuration file" on to a programmable network device (Col 2, lines 25-45), the

programmable network device coupled to a LAN (Fig 1, 30) via a first interface and to an

internerwork (Col 3, line 65- Col 4, line 15) via a second interface (Fig 1, 36), the method

comprising:

sending a first module "configuration file" from the plurality of modules to the

programmable network device via the internerwork (Col 5, line 60- Col 6, line 20); The central

administrator identify the network device that is to be configured with the appropriate data.

loading the first module in the programmable network device (Col 5, line 60- Col 6, line 20);

executing the first module in the programmable network device, the first module performing a first network management function on the LAN (Col 5, line 60- Col 6, line 20);

sending a second module from the plurality of modules "configuration file" to the programmable network device via the internerwork (Col 5, line 60- Col 6, line 20);

loading the second module "configuration file" in programmable network device (Col 5, line 60- Col 6, line 20);

executing the second module in the programmable network device, the second module, performing a second network management function on the LAN (Col 5, line 60- Col 6, line 20);

wherein modules on the network devices are configured to be remotely loaded (from central administrator to devices), unloaded, or modified to facilitate service changes (create, modify or delete objects) without interrupting network traffic routed through the network devices (Col 7, lines 40-50) (Col 9, lines 35-50) (Col 10, lines 20-40). The changes are implemented using filters, which allows the changes to take place without interruption.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 4, 8, 13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US

Patent No, 6,041,347 by Harsham et al in view of US Patent No, 6,493,349 by Casey.

5.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

In claims 4, 8, 13 and 18 Harsham teaches all the limitation but does not explicitly teach

about the distributed stack of claim 3, wherein the first application protocol is one of an MPLS

protocol, an IP Sec protocol, an L2TP protocol, and a firewall.

It is well known in the art that different virtual private networks (VPNs) (as describe by

Harsham (Col 3, line 65- Col 4, line 15) although being a part of the same network system has

different operating condition. Application protocols are created to best satisfy the specific need

of the devices it supports. Casey teaches about an extended internet protocol virtual private

network architectures, in which different protocols are utilized to accommodate the variation of

the different VPNs (Col 3, lines 25-45).

It would have been obvious at the time of the invention for some one of ordinary skill to

use standard protocols in order to support interoperability.

Virtual Private Network can be realized in many different forms. In order for a VPN to

communicate with a different VPN, it is important that the differences between protocols are

well understood. A standard protocol is well defined which make the conversion process going

back and forth more reliable.

Claims 5, 10, 14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over

US Patent No, 6,041,347 by Harsham et al and US Patent No, 6,493,349 by Casey in view of US

Patent No, 5,937,388 by Davis et al.

In claims 5, 10, 14 and 19, Harsham combined with Casey teaches all the limitation but

does not explicitly teach about the distributed stack of claim 4, wherein the first network

management protocol is one of an SLA function, an SNMP protocol, and a CMIP protocol.

It is well known in the art that different virtual private networks (VPNs) (as describe by Harsham

(Col 3, line 65- Col 4, line 15) although being a part of the same network system has different

operating condition. Application protocols are created to best satisfy the specific need of the

devices it supports. Davis teaches about a system and method for performing scalable

distribution of process flow activities in a distributed workflow management system, in which

different protocols are utilized to accommodate the variation of the different network entities

(Col 7, lines 55-60), (Col 9, lines 55-67).

It would have been obvious at the time of the invention for some one of ordinary skill to

use standard protocols in order to support interoperability.

Virtual Private Network can be realized in many different forms. In order for a VPN to

communicate with a different VPN, it is important that the differences between protocols are

well understood. A standard protocol is well defined which make the conversion process going

back and forth more reliable.

Claims 6, 11, 15-16 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No, 6,041,347 by Harsham et al and US Patent No, 6,493,349 by Casey in view of US Patent No, 6,567,783 by Notani et al.

In claims 6, 11, 15-16 and 20-21, Harsham combined with Casey teaches all the limitation but does not explicitly teach about the distributed stack of claim 4, wherein the first network management protocol is one of CORBA and XML.

It is well known in the art that different virtual private networks (VPNs) (as describe by Harsham (Col 3, line 65- Col 4, line 15) although being a part of the same network system has different operating condition. Notani discloses the advantage of using CORBA an XML in a multi-domain environment (Col 3, lines 35-60).

It would have been obvious at the time of the invention for some one of ordinary skill to use an object oriented approach in order to effectively model the complexity of a multi-domain environment in order to support interoperability.

The complexity of network is better model using an object orientation approach. In object orientation language, interfaces are well defined and the complexity of protocol conversion is encapsulated in manageable modules. This supports code management and its implementation.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No, 6,041,347 by Harsham et al in view of US Patent No, 5,961,627 by Fok et al.

In claim 12, Harsham teaches about a programmable network device, wherein the

programmable network device couples a first computer network to a second computer network

(Col 4, lines 25-45), the programmable network device comprising:

two or more software modules " telnet and email" (Fig 7) (Col 7, lines 60-67), the

software modules encoded in a first language, the two or more modules including

a first module, wherein the first module executes an application service on packets routed

between the first network and the second network " telnet and email" (Fig 7) (Col 7, lines 60-67)

a second module, wherein the second module executes a network management service

on packets routed between the first network and the second network (Col 4, lines 25-45);

a real-time operating system, wherein the two or more software modules are executed on

the real-time operating system (Col 6, lines 40-60);

wherein modules on the network devices are configured to be remotely loaded (from

central administrator to devices), unloaded, or modified to facilitate service changes (create,

modify or delete objects) without interrupting network traffic routed through the network devices

(Col 7, lines 40-50) (Col 9, lines 35-50) (Col 10, lines 20-40). The changes are implemented

using filters, which allows the changes to take place without interruption.

but does not explicitly teach wherein the programmable network device has a minimum

line rate of 1 gigabit per second.

LANs are used to support sharing among peer network devices. A Gigabit LAN was

disclosed by Fok (Col 2, lines 35-40).

It would have been obvious at the time of the invention for some one of ordinary skill to

use a gigabit LAN to increase the throughput.

The realization of the increase in CPU processing has being limited by the bottleneck of

10BaseT and 100BaseT networks. These networks are too slow to support CPU speed that is

much greater. To improve the distributed computing, a faster LAN is required which is realized

using a Gigabit LAN.

Conclusion

6.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

7.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

US patent No. 648,0901 by Weberet et al, teaches about a system for monitoring and

managing devices on a network from a management station via a proxy server that provides

protocol converter

US patent No. US 6,101,508 by Wolff, teaches about a clustered file management for network resources.
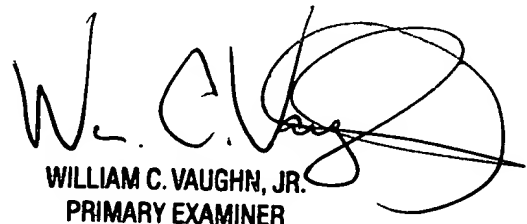
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael S. A. Delgado whose telephone number is (571) 272-3926. The examiner can normally be reached on 7.30 AM - 5.30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn Jr. can be reached on (571)272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MD

WILLIAM C. VAUGHN, JR.
PRIMARY EXAMINER